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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,925	12/12/2003	Axel L. Bernhard	27795-00032USPX	2233

7590 12/19/2005

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EXAMINER

GREENE, DANA D

ART UNIT PAPER NUMBER

3762

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/734,925	BERNHARD ET AL.	
	Examiner	Art Unit	
	Dana D. Greene	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-13, and 15-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Petrofsky (US 4,996,987, hereinafter "Petrofsky"). Petrofsky is considered to disclose:

an electro stimulation system for providing signals to a subject including at least one electrical power supply (see col. 12, ln. 38-46, Petrofsky). The disclosed power supplies PS1 and PS2 are considered to anticipate the claimed power supply because both supply of electrical signals to the skin of the subject;

a first switching device for intermittently connecting the output of an electrical power supply to one or more connection probes electrically connected to the subject thus forming return path probes (see col. 3, ln. 30-40 and col. 4, ln. 25-35 and col. 9, ln. 25-30, Petrofsky).

a second switching device for intermittently connecting on ore more connection probes electrically connected to the subject to form an electrical current return path for current supplied by the electrical power supply (see col. 4, ln. 25-35 and col. 9, ln. 25-30, Petrofsky). The disclosed device is considered to anticipate the claimed switching device because both control the output from the electrical power supply that is

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connected to a current control circuit. In this connection, amplified voltage driving signals are coupled to respective switches to define a two-channel stimulator.

the intermittent connection of the output of an electrical power supply or the intermittent formation of electrical current return paths vary during a treatment such that a single connection probe can act as an active probe or a return path probe at different times the selection resulting from the activation of the switching devices and wherein the switching devices act independently of each other (see col. 3, ln. 30-40 and col. 6, ln. 3-9, Petrofsky). The disclosed variation in current is considered to anticipate the claimed variation in current return paths because both ultimately cause a similarly varying electrical current flow through an area under treatment. Regarding the connection probes, Petrofsky is considered to disclose these probes in the form of wires connected or coupled to electrodes; which are adhered to the skin over the muscle to be stimulated. The therapeutic currents to be applied to the muscles are typically connected over these wires/probes.

Regarding claims 4-12, Petrofsky is considered to disclose:

selecting one or more of the probes for connection to at least one electrical power supply thereby causing said one or more probes to become active probes (see col. 12, ln. 38-46, Petrofsky). The disclose wires/probes of the stimulator are powered via a connection with a 120 VAC supply through a plug which is selectively coupled to power supplies PS1 and PS2 via on/off switch;

selecting one or more of the probes for connection to an electrical current return path thereby causing said one or more probes to become return probes; connecting

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said one or more active probes to the at least one electrical power supply and said one or more return probes to an electrical current return path thus causing an electrical current to flow between said active and return probes (see col. 12, ln. 38-45, Petrofsky); and

altering the selection of active and return probes and switching the probe connections to accord with the altered selection (see col. 13, ln. 40-45, Petrofsky). The disclosed method of alternately converting first and second driving signals to their respective stimulating currents is considered to anticipate the claimed method because both methods use the same system to provide electro-stimulation to a subject via the use of certain selected wires/probes.

With reference to claims 13 and 15-20, Petrofsky is considered to disclose:

a controlled electrical signal supply for supplying electrical currents to a subject, said electrical current flowing through an area of the subject by connection of same with at least one active and return probe wherein an electrical power supply is connected to the at least one active probe; a first electrical resistance is connected in parallel with the active and return probes; and the junction between the return probe and the first resistance is connected to a ground reference through a controllable variable conductance network (see col. 3, ln. 33-40, Petrofsky). The disclosed electrodes are considered to anticipate the claimed probes because both are in electrical connection with the subject of the treatment and are spaced in a manner to allow the application of electrical signals to the active probes to cause flow of electrical current through the area of the body between the probes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrofsky in view of Parramon et al. (US 6,632,296 B1, hereinafter "Parramon"). Petrofsky is considered to disclose the claimed invention as discussed above, under the anticipatory rejection except for the claimed multiplexing device. However, this device is disclosed in Parramon (see col. 2, ln. 10-20, Parramon). It would have been obvious to one of ordinary skill in the art to combine the teachings of Petrofsky with the considered multiplexing scheme teaching found in Parramon for the purpose of supplying electrical signals to the skin of the subject through the multiplexing device to cause electrical current to flow between one or more "active" probes and one or more "return" probes.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrofsky in view of Malaugh et al. (US 5,514,165, hereinafter "Malaugh"). Petrofsky is considered to disclose the claimed invention as discussed above, under the anticipatory rejection, except for the claimed significantly greater first electrical resistance. However, this difference value is taught in Malaugh (see col. 8, ln. 30-40, Malaugh). It would have been obvious to one of ordinary skill in the art to combine the teachings of Petrofsky with the difference between the peak voltage taught in Malaugh for the

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purpose of providing more comfort to the subject and for reducing the incidence of a stinging sensation when the active probes are first attached to a treatment area.

Conclusion

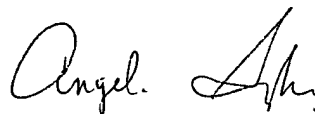
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana D. Greene whose telephone number is (571) 272-7138. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-4376.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dana D. Greene



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